

NYC Open Sensor Network Workshop

Friday, December 2, 2011

Eyebeam Art + Technology Center

540 W 21st Street

New York, NY

AGENDA

11:00 - 11:15	Arrival, meet + greet, coffee
11:15 - 11:30	Introduction, plan for the day
11:30 - 11:50	On gathering and sharing data (Usman Haque)
11:50 - 12:10	AIRNow.gov (Tim Dye)
12:10 - 12:30	Survey of existing air quality projects (Mark Shepard)
12:30 - 1:30	Lunch, participant introductions, self-assemble groups
1:30 - 2:00	Technical overview of hardware/software - Nanode, sensors, Pachube
2:00 - 5:00	Develop conceptual prototype, preliminary field testing, documentation
5:00 - 6:00	Present outcomes; discuss strengths, limitations, challenges, opportunities, ...
6:00 - 7:00	Wrap-up, drinks

air quality monitoring: a few precedents

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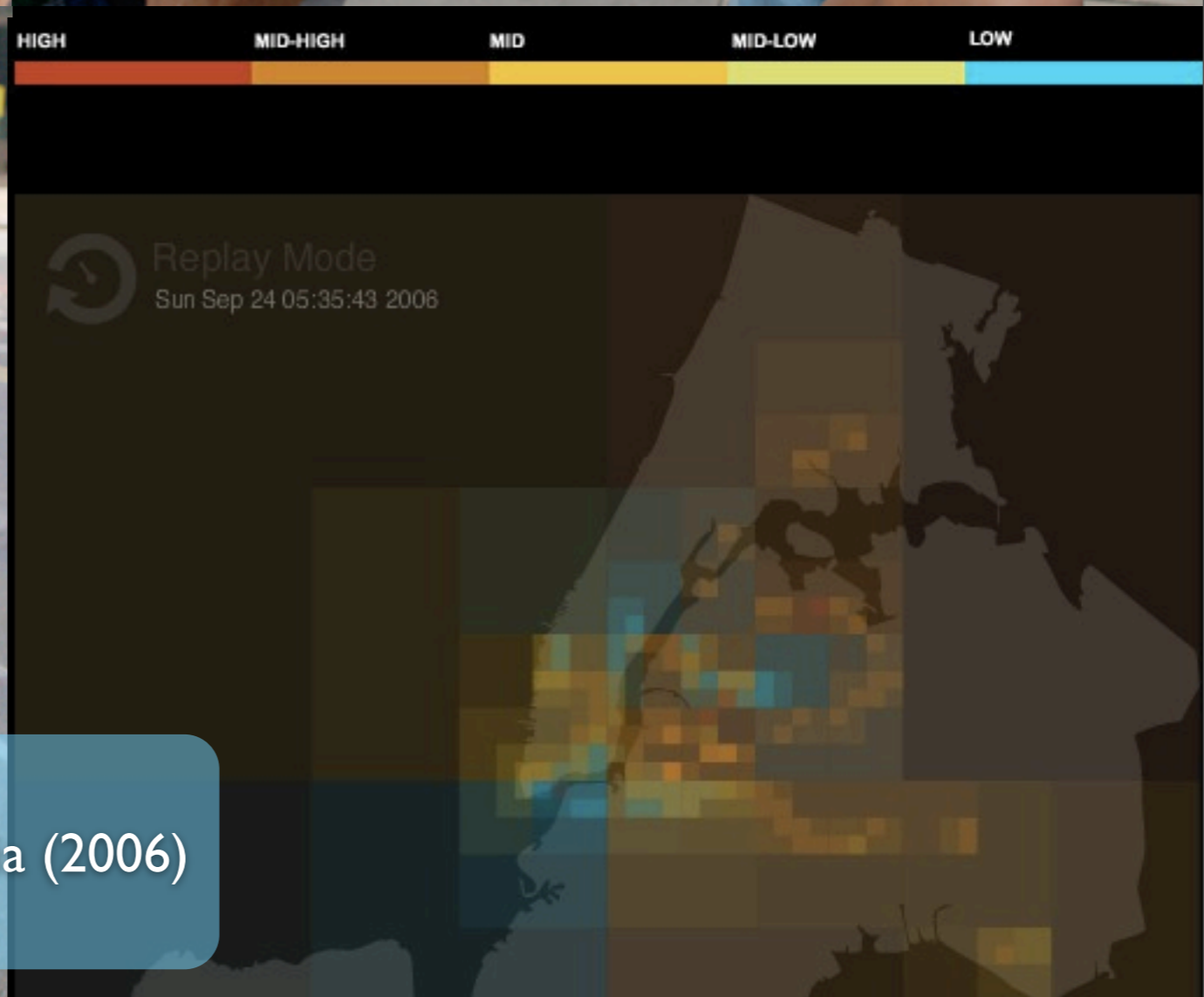
NYC Internet of Things Meetup

Pachube

Dec 2, 20-11

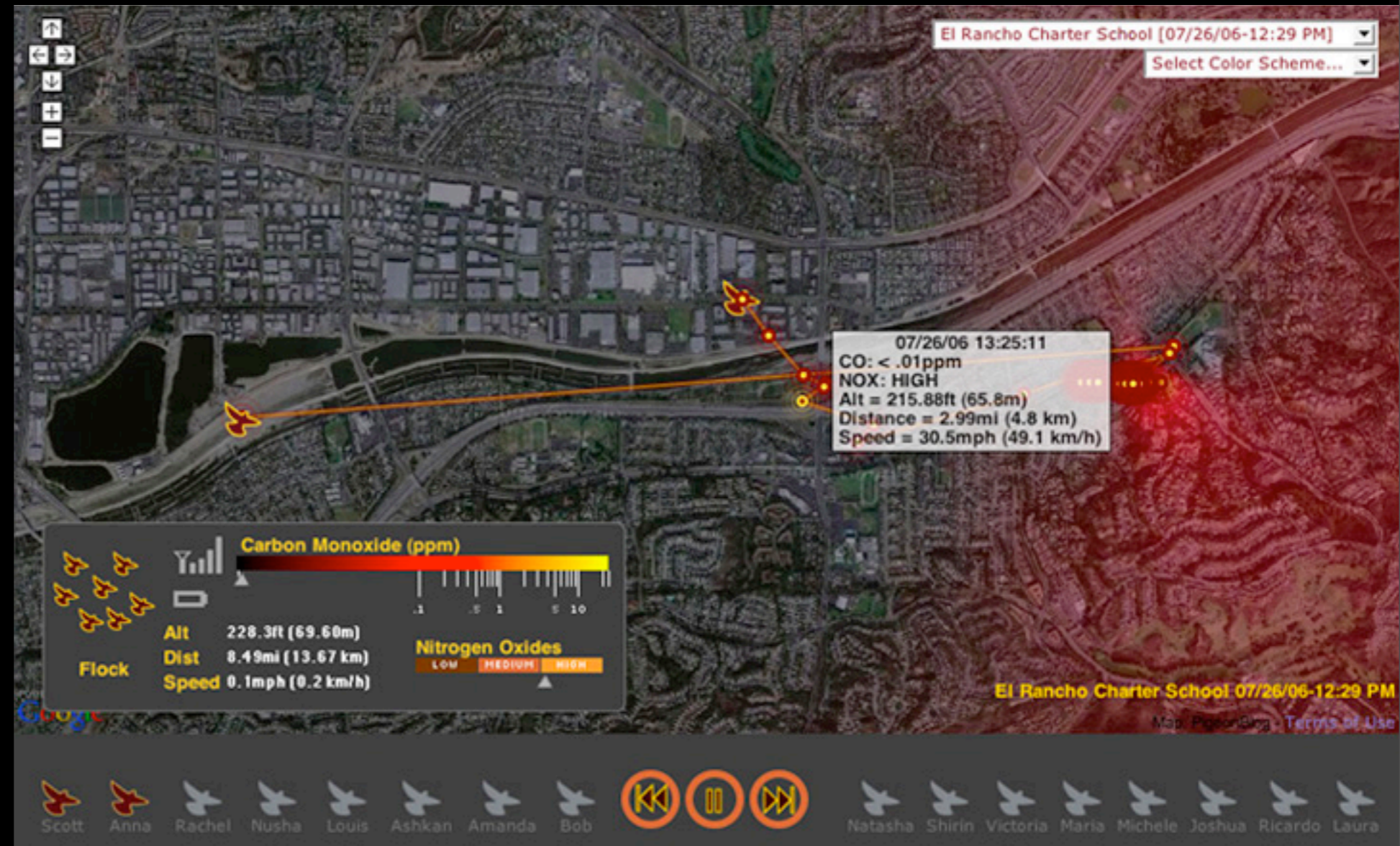
One Tree(s), Natalie Jeremijenko (1998-2004)





AIR (Area's Immediate Reading), Preemptive Media (2006)

Pigeonblog, Beatriz da Costa (2006)





SAN FRANCISCO AIR QUALITY

SELECT MODE

CHOOSE DATE

CHOOSE SPEED

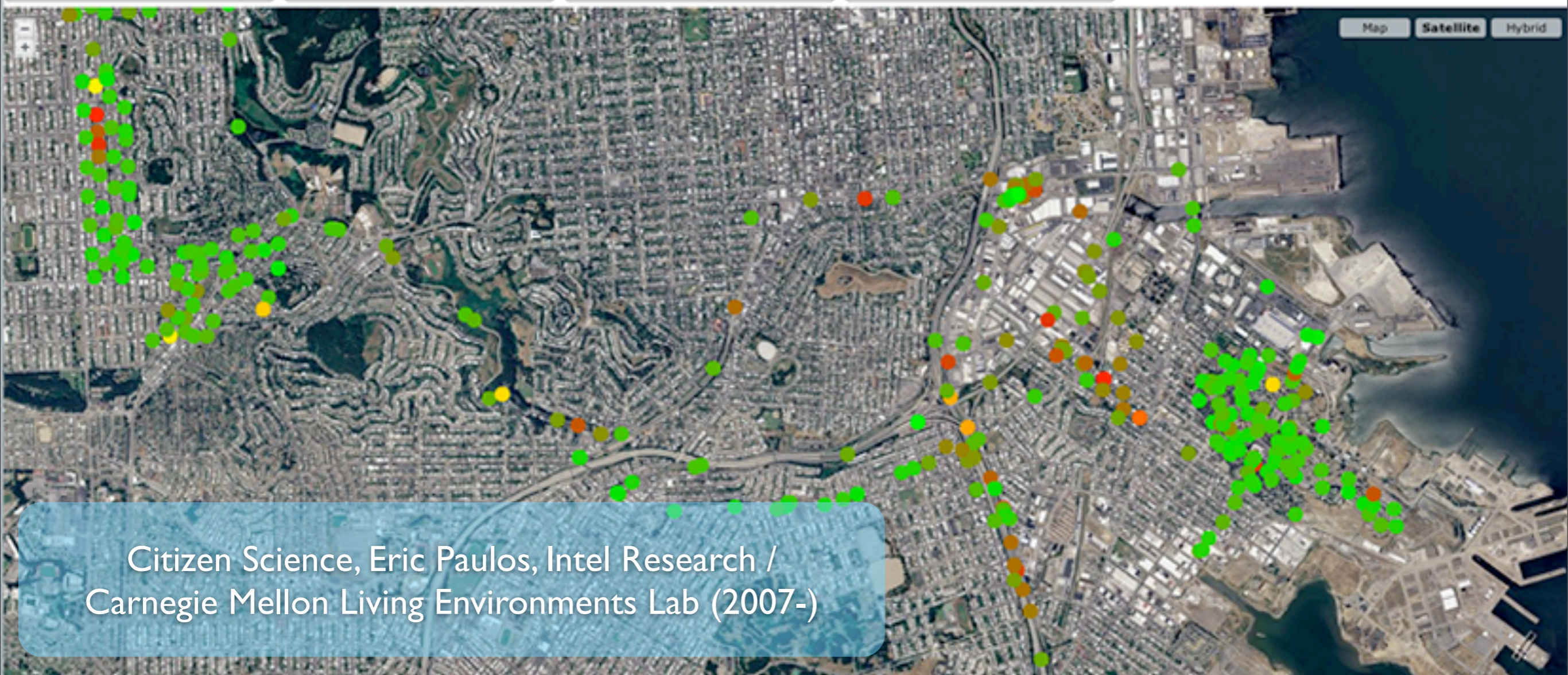
CHOOSE SENSOR

DAY

Fri 11 April

FAST

Carbon Monoxide (CO)



Citizen Science, Eric Paulos, Intel Research /
Carnegie Mellon Living Environments Lab (2007-)

Home
Research
Outcome

Project Overview

How does one engage sensing and visualization from a design and humanities perspective? And once so engaged, what new knowledge and forms of expression result?

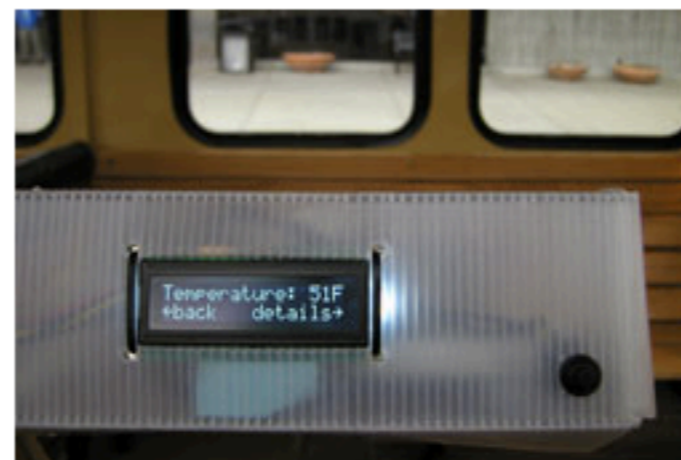
Over the course of Spring semester 2008 we investigated the opportunities and challenges of participatory sensing and experimental information visualization. Although sensing and visualization are often cast as distinct fields and efforts, we chose to bundle them because from a design perspective sensing necessarily gives way to visualization: the data collected must be expressed. In particular, we were motivated to explore and understand sensing



and visualizations as practices and mediums that are structured by the qualities of computational media, but are not reducible to these qualities alone, as sensing and visualization are pursued as social endeavors situated within specific material, historical, and political conditions.

Themes

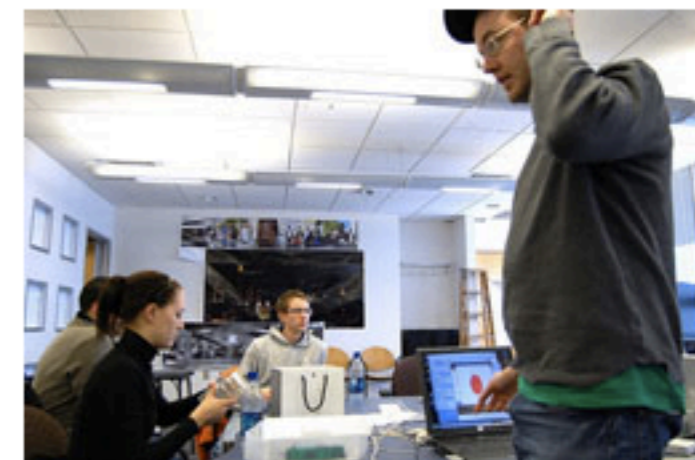
Throughout this investigation we have documented and reflected on our processes of data collection and data visualization. This reflection has lead us to several challenges-sites entanglement- in which the critical and reflective traditions of the design and the humanities confront with the technical conditions and discourses of sensing and visualization. We believe this entanglement is not problematic but productive as it has lead us to three central themes of current and ongoing inquiry:



1) What are the distinctions between identifying, communicating and understanding complexity in data and systems; 2) How can we express the inherent subjectivity of sensing and information visualization to resist the reductive nature of visualizations; 3) What is, or could be, the role of the arts and humanities in addressing 1 & 2

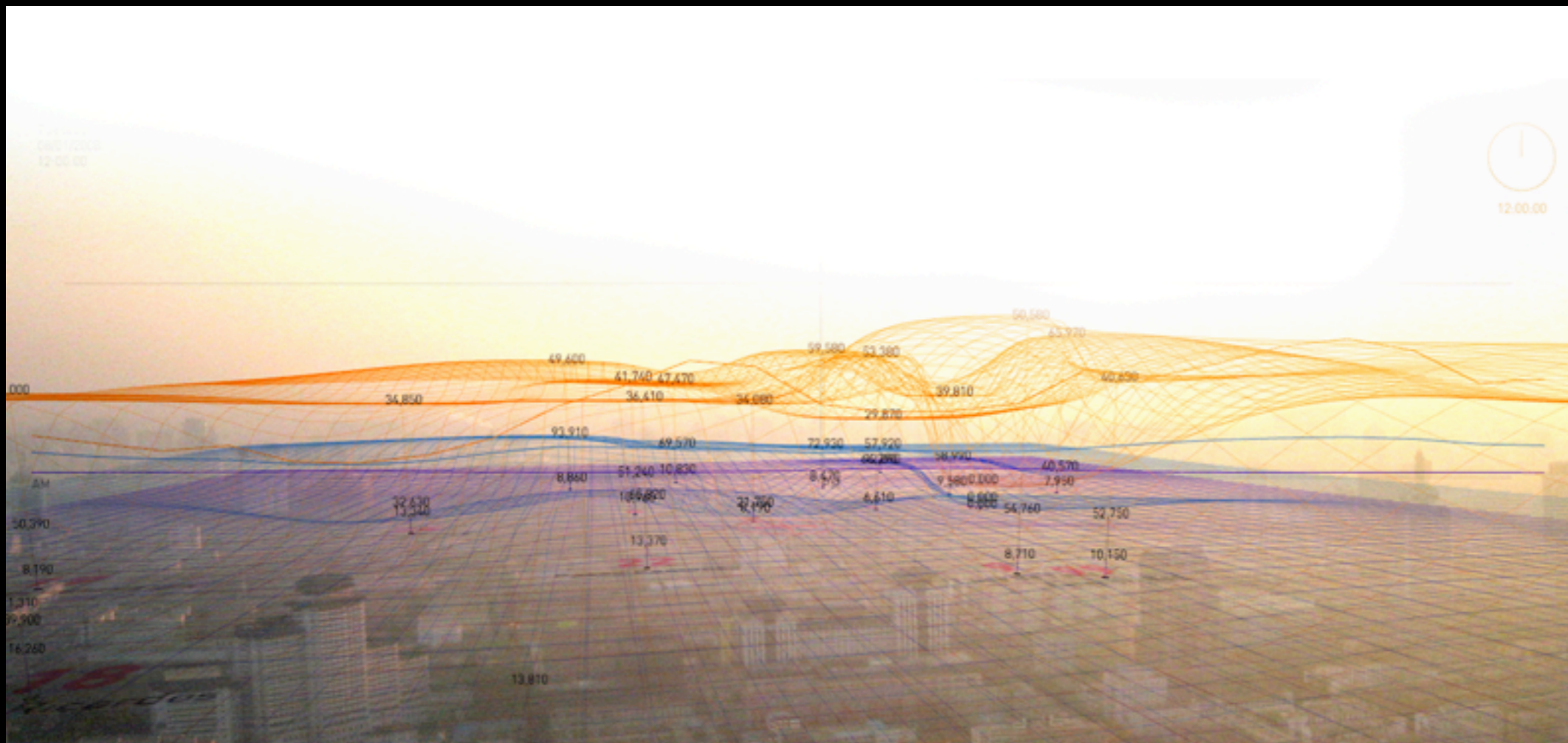
Team

Jisun An - DM Graduate Student ([link](#))
Courtenay Bird - DM Graduate Student ([link](#))
Pamela Griffin - HCI Graduate Student ([link](#))
Heerin Lee - DM Graduate Student
Joel Linderman - DM Graduate Student ([link](#))
Adam Rice - DM Graduate Student ([link](#))
Will Riley - DM Graduate Student ([link](#))
Jasper Sluijs - DM Graduate Student ([link](#))
Daniel Upton - DM Graduate Student ([link](#))
Carl DiSalvo - Asst Prof., Digital Media ([link](#))



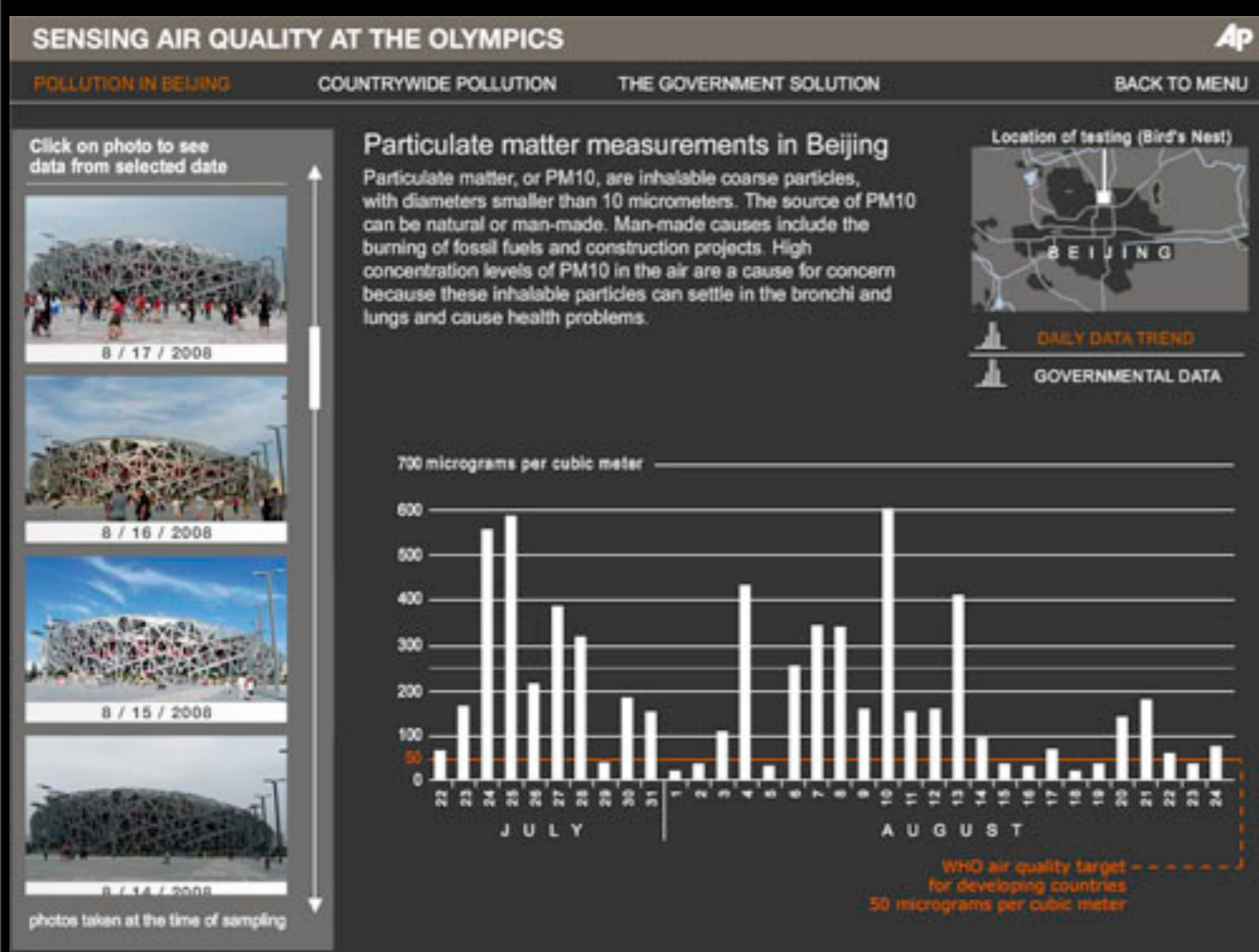
Resources

Processing ([link](#))
XML/SWF Charts ([link](#))
Canary Overview ([link to pdf](#))
Visual Complexity ([link](#))
Public Design Workshop ([link](#))



In the Air, Nerea Calvillo, Medialab-Prado (2008)

Beijing Air Tracks, Sarah Williams, Spatial Information Design Lab (2008)





LOCAL AIR QUALITY CONDITIONS AND FORECASTS

Zip Code: State:

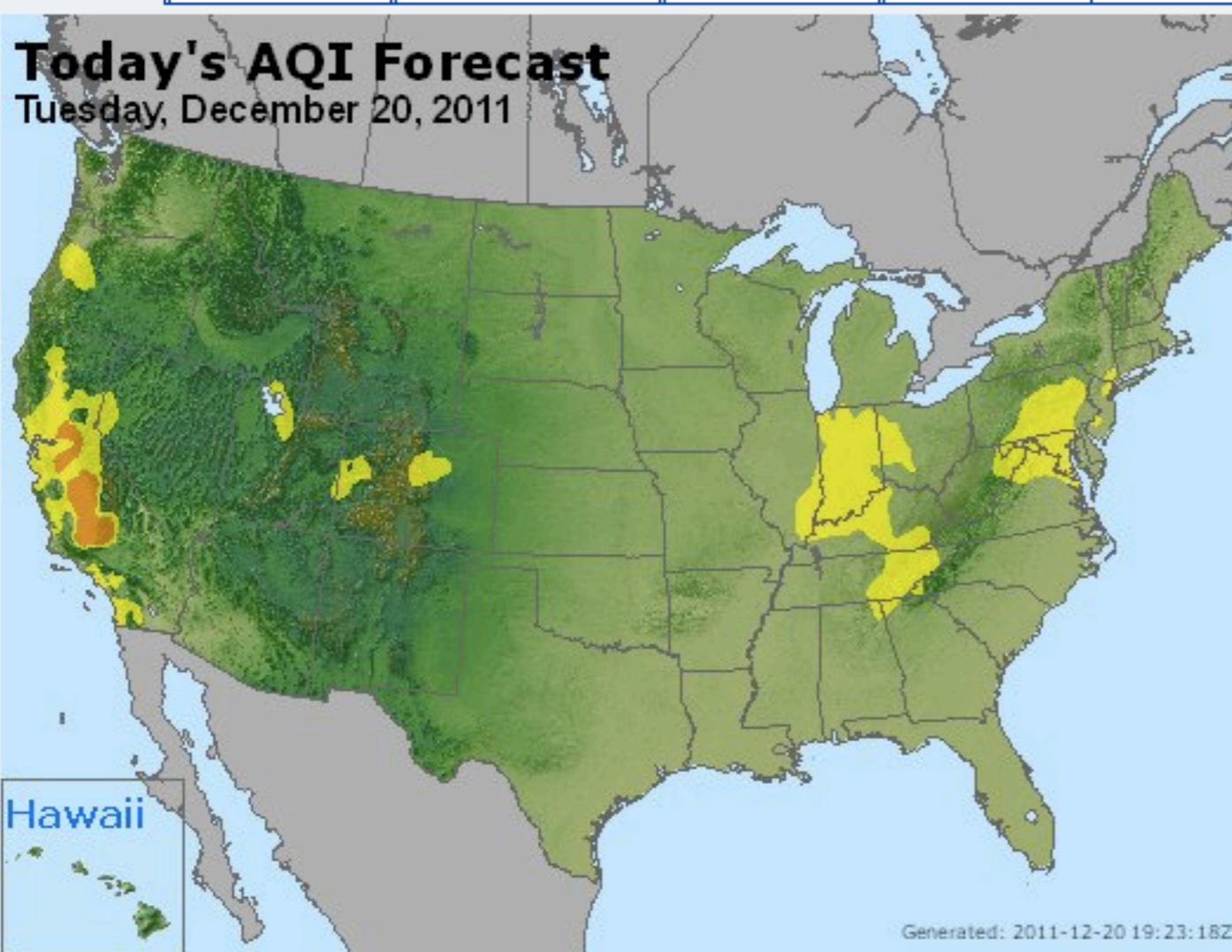
[U.S. Air Quality Summary \(text\)](#)

Click on a state for more information

[Forecast](#) [Current AQI](#) [AQI Animation](#) [Current Ozone](#) [Current PM_{2.5}](#)

Today's AQI Forecast

Tuesday, December 20, 2011



Good **Moderate** **USG** **Unhealthy** **Very Unhealthy** **Hazardous** **Action Day**

Highest 5:

[U.S. Air Quality Summary](#) | [Canada Air Quality](#)

[Today's Forecasts](#) [Tomorrow's Forecasts](#) [Current AQI](#)

Announcements

10/18/11: Free AIRNow EnviroFlash Android and iPhone Apps Now Available. [Download Android App](#) | [Download iPhone App](#).

11/7/11: [School Flag Coordinator Handbook](#) Now Available

10/11/11: [SAVE THE DATE! National Air Quality Conference: AMBIENT MONITORING 2012](#), Denver, Colorado, May 14-17, 2012

[more announcements](#)

News Items

E-Mail Notification



EnviroFlash provides air quality information such as forecasts and action day notifications via email for your area of interest. [Sign-Up](#)

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AQI in Google Earth

AirCompare

Publications | Publicaciones (en español)

[Air Quality Maps: Monitoring Locations and Archives](#)

BP Spill Information

AIR QUALITY BASICS

[Air Quality Index](#) | [Ozone](#) | [Particle Pollution](#) | [UV](#) | [Smoke from Fires](#) | [What You Can Do](#)

HEALTH



Tuesday 12/20/11 14:47

[Home](#) [Maps](#) [Group Reports](#) [Air Monitoring Stations](#) [Links](#) [Preferences](#)



View of Adirondack High Peaks from the summit of Mt. Skylight. Photo by Barb Northrup

This site provides near real time air quality measurement data from the New York State DEC Air Monitoring network.

JavaScript must be enabled for this application to work in regular mode.

The NYSDEC Air Quality monitoring website allows a real-time view into the ambient air quality database of the New York State Department of Environmental Conservation. In general, data is polled at the top of each hour from each station. It is immediately displayed as it is collected.

There are a few paths to select the data for specific monitoring stations.

Clicking on the "Maps > New York Map" button on the menu bar will show a map of the state and the dots represent the regions with air monitoring stations. Note that the color of the dot for each

**LOWER MANHATTAN
CONSTRUCTION
COMMAND CENTER****Lower Manhattan.info**
Information to Build On

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Programs in Lower Manhattan / Air Monitoring Results

[Air Monitoring Results](#) | [Protecting the Environment](#) | [Quality of Life](#) | [Fraud Prevention](#) | [Opportunity Downtown/MWBE](#)

Air Monitoring Results - Daily Summary

Date:

Lower Manhattan Construction Command Center - 12/19/2011

The following table records the average concentration of particulate matter accumulated over a 24 hour period.

Average		Exceeds Standard	Air Quality Index	
PM 10 (µg/m³)				
292 Greenwich St.	21.1	No		Good
80 Catherine St.	17.9	No		Good
1 WFC	19.5	No		Good
1 Chase Plz.	18.1	No		Good
PM 2.5 (µg/m³)				
292 Greenwich St.	12	No		Good
80 Catherine St.	10.9	No		Good
1 WFC	12.3	No		Good
1 Chase Plz.	11.7	No		Good

Recommended Favorites

- [> Lower Manhattan Logistics - July](#)
- [> Get Email Updates](#)
- [> Latest Advisories](#)
- [> About Lower Manhattan](#)
- [> Looking Ahead](#)
- [> Construction Contacts](#)

	Wind Speed	Wind Velocity	Wind Direction	Quadrant	Temperature	Pressure
292 Greenwich St.	2.7	1.5	51	NE	107.78	1.01
80 Catherine St.	2.8	1	321	NW	108.14	1.01
1 WFC	7.9	6.2	353	N	104.54	1.01
1 Chase Plz.	2.7	2	339	NNW	109.58	1.01

Environmental Protection Agency Air Monitoring: Greenwich and Thames Streets

As part of an ongoing program, the U.S. Environmental Protection Agency (EPA), in conjunction with other regulatory agencies, is